

# Expanded Cape route



Widening of the existing N2 to accommodate a new climbing lane

**J**G Afrika is overseeing the upgrade of a 48 km section of the N2 highway between Caledon and Rivieronderend in the Western Cape, with the works being carried out by main contractor Group Five. The main scope entails the widening of the road, which was originally built between 1978 and 1983, as well as upgrading its intersections to accommodate increased traffic volumes.

“The road mainly comprised a single carriageway with surfaced lanes and shoulders,” explains Duncan Murphy, technical director, JG Afrika. “Its surface width varied between 11.5 m and 17.5 m – except for the first 1.12 km, which consisted of four lanes with a raised median island in areas.”

Once completed, the route will have a minimum surface width of 13.4 m, including two 3.7 m wide lanes and 3 m wide shoulders, in areas. Where there are existing climbing lanes, the road is being widened to allow for 3.7 m wide passing and 3.7 m wide climbing lanes, as well as a 1.5 m wide surfaced shoulder.

## River bridges

The work scope also includes the widening of the Droogas River and Maandagsout River bridges, as well as the lengthening of 14 major culverts along the route. Droogas River Bridge

comprises two spans of simply supported reinforced concrete deck, supported by a wall-type pier and closed-face abutments. It is being widened by two simply supported spans with about a 3.5 m clearance above the access road and 4.5 m above the riverbed, to create a 1.95 m solid reinforced concrete deck.

The existing barriers will be replaced with cast in situ F-shape barriers, while the foundations for the abutments, wing-wall extensions and central pier comprise pad footings on the hard shale, and are identical to the structure’s existing foundations.

Maandagsout River Bridge comprises three spans of simply supported 610 mm thick reinforced concrete deck with wall-type piers and closed-face abutments. The new deck, which has a minimum depth of 550 mm, is being constructed with concrete and is similar in appearance to the existing structure. Its existing piers and abutment walls are supported by caissons. Due to the close proximity of the works to the existing structure, pilings support the widened section’s piers and abutments, which have also been founded on hard shale.

A total of 94 of the 117 minor culverts along this section of the N2 are being lengthened, while new concrete-lined drains, down chutes, catch pits, cut-off drains, toe drains and erosion protection are being constructed along the widened sections. **3S**



Construction of new surfaced intersection with Divisional Road 1303



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